Dr. Tillwich GmbH
Werner Stehr

Product Specifications

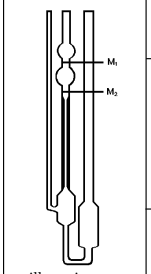
Clock 859

Article No.: TS5100

Synthetic Clock Oil

Laboratory Data:

Kinematic Viscosity (DIN)



capillary viscometry

Temperature	ν (mm²/s)
0°C [32°F]	550
20°C [68°F]	150
40°C[104°F]	60
Viscosity Index (ISO)	150
Viscosity-Temperature-Behavior	good

Permanent Low Temperature -20 °C
(72 hrs without crystallization) [-4°F]

Application Temperature -15°C to +100°C
[5°F to +212°F]

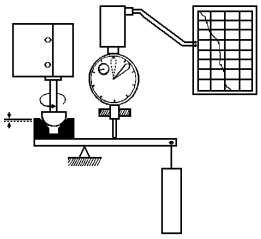
Density 20°C [68°F] (DIN) 0.98 g/cm³
Surface Tension 32 mN/m
Color yellow
Evaporation Rate -0.1 %
(16 hrs/105°C [221°F]) very low
Drop Stability good

Durability very good
Corrosion Resistance brass: very good
steel: very good

Compatibility with Plastics
compatible PA66, PBTP, POM
satisfactory POM (CL)
incompatible ABS, ASA, PC, PPO, SB
Chemical Name Arylpolyalcanoate

Tribological Data:

Test system: sphere on prism (ISO 7148/2)



Friction Behavior
dependent on sliding speed

v (mm/s)	f	friction coefficient f (0.1 / 0.2 / 0.3 / 0.4)
0	0.18	
20	0.02	
50	0.01	
200	0.01	

materials: steel/brass, load 3N, 25°C [77°F]
lubricant: Clock 859

Wear Behavior
comparison: dry and lubricated with Clock 859

materials		wear (in mm) (0.01 / 0.03 / 0.1 / 0.3 / 1.0)
St/bs:	Clock 859	
	dry	
St/st:	Clock 859	
	dry	

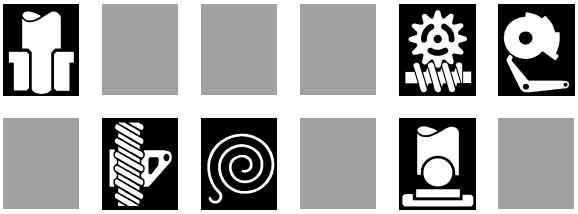
test parameters: load 30N, distance 10 km, 25°C [77°F], v = 28.1 mm/s

Comments:

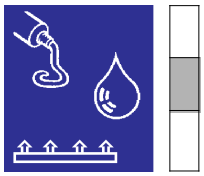
Clock 859 is a synthetic clock oil. Its stability against aging is superb, even under most adverse conditions. It is compatible with steel, brass and plastic materials. Special stabilizers protect the oil from negative influences of pinion or free cutting steel. Friction values in steel/steel and brass/steel bearings are outstandingly low. Wear is reduced to a minimum.

Application:

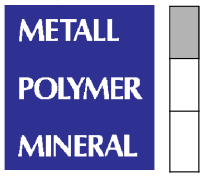
For clock movements, counters, printers, alarm clocks, helical gear trains, measuring devices, precision gears, plotters, brass/steel bearings from 0.1 to 10 mm diameter (0.004 to 3/8 inches).



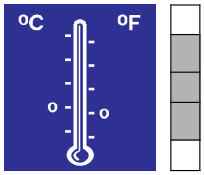
Product



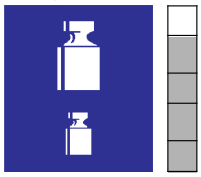
Bearing material



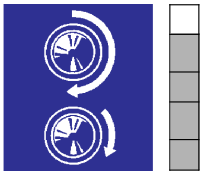
Application temperature



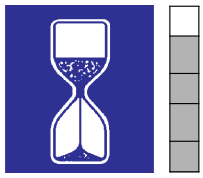
Bearing load



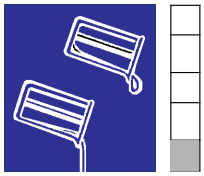
Sliding speed



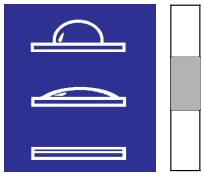
Durability



Viscosity



Wetting



P094

Dr. Tillwich GmbH Werner Stehr
Murber Steige 26
D-72160 Horb (Ahldorf)

Phone: +49 74 51 / 23 41
Telefax: +49 74 51 / 76 24
Mail: info@dr-tillwich.com